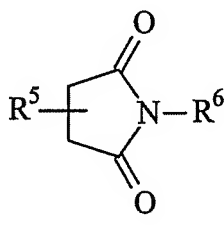


### AMENDMENT TO CLAIMS

1. (Currently Amended) A method of preparing additives for lubricating materials on the basis of chemically modified nanosized particles of molybdenum trisulfide and/or derivatives thereof, characterized in that the nanosized particles of molybdenum trisulfide and/or derivatives thereof are prepared from salts of thiomolybdic acid of the general formula  $M_2MoS_{4-x}O_x$ , where M is  $NH_4$ , Na, x is 0-3, in the presence of two modifiers, where tetraalkylammonium salts or mixtures of salts of the general formula  $R^1R^2R^3R^4NX$  are used as the first modifier, wherein  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are identical or different and are selected from the group consisting of  $C_1$ - $C_{16}$  alkyl, X is Cl, Br, while derivatives of succinimide of the general formula

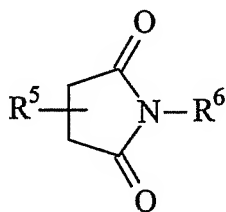


are used as the second modifier, wherein  $R^5$  is normal or branched alkyl or oligoalkylene having a molecular weight of from 140 to about 1000,  $R^6$  is selected from the group consisting of H,  $-C(=O)NH_2$ ,  $-(CH_2CN_2NH)_nCH_3$ , n is 1 – 4,

wherein the process is carried out by thermally processing a homogenized in a non-aqueous polar solvent mixture of said salt of thiomolybdic acid and said first or second modifier at a temperature of 150-220°C, cooling the obtained mixture and subsequently adding said second or first modifier, respectively.

2. (Currently Amended) A method of preparing additives for lubricating materials on the basis of chemically modified nanosized particles of molybdenum trisulfide and/or derivatives thereof, characterized in that the nanosized particles of molybdenum trisulfide and/or derivatives thereof are prepared from salts of molybdic acid of the general formula  $M_2MoO_4$ , where M is

NH<sub>4</sub>, Na, and a sulfur donor, which is an inorganic sulfide or polysulfide of the general formula M'<sub>2</sub>S<sub>n</sub> wherein M' is NH<sub>4</sub>, Na, n is 1 – 4, or thiourea, in the presence of two modifiers, where tetraalkylammonium salts or mixtures of salts of the general formula R<sup>1</sup>R<sup>2</sup>R<sup>3</sup>R<sup>4</sup>NX are used as the first modifier, wherein R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are identical or different and are selected from the group consisting of C<sub>1</sub>-C<sub>16</sub> alkyl, X is Cl, Br, while derivatives of succinimide of the general formula



are used as second modifier where R<sup>5</sup> is normal or branched alkyl or oligoalkylene having a molecular weight of from 140 to about 1000, R<sup>6</sup> is selected from the group consisting of H, -C(=O)NH<sub>2</sub>, -(CH<sub>2</sub>CN<sub>2</sub>NH)<sub>n</sub>CH<sub>3</sub>, n is 1–4,

wherein the process is carried out by thermally processing a homogenized in a non-aqueous polar solvent mixture of said salt of molybdic acid, said sulfur donor which is an inorganic sulfide, polysulfide or thiourea, and said first and/or second modifier at a temperature of 150-220°C, cooling the obtained mixture and subsequently adding said second and/or first modifier, respectively.

3. (Currently Amended) The method according to claim 1, characterized in that the thermal processing is carried out ~~at a temperature of 150 to 220°C~~ for 1 – 2 hours.

4. (Previously Presented) The method according to claim 1, characterized in that methanol, ethanol, propanol, isopropanol, n-butanol, isobutanol, 2-butanol, acetone or benzene is used as the solvent.

5. (Currently Amended) The method according to claim 2, characterized in that the thermal processing is carried out at a temperature of ~~150 to 220°C~~ for 1 – 2 hours.

6. (Previously Presented) The method according to claim 2, characterized in that methanol, ethanol, propanol, isopropanol, n-butanol, isobutanol, 2-butanol, acetone or benzene is used as the solvent.